

Re: PCPG July 24, 2012 News Update - article on brine water potential from Marcellus  
Richard Rupert to: Dennis J Low

07/27/2012 11:45 AM

From: Richard Rupert/R3/USEPA/US  
To: Dennis J Low <djlow@usgs.gov>

Will you be around about 130pm today? I could call then...

Richard Rupert,  
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"The commander in the field is always right and the rear echelon is wrong, unless proved otherwise."  
Colin Powell

Dennis J Low ---07/27/2012 06:30:34 AM---Rich, Yes, I'd like to talk about Dimock and the area up there.

From: Dennis J Low <djlow@usgs.gov>  
To: Richard Rupert/R3/USEPA/US  
Date: 07/27/2012 06:30 AM  
Subject: Re: PCPG July 24, 2012 News Update - article on brine water potential from Marcellus

Rich,

Yes, I'd like to talk about Dimock and the area up there.

Right now, our office is looking at a core hole that was drilled by the state to evaluate the contact between the Catskill and Lock Haven Formation. The core hole is about 1300 ft deep and a number of borehole geophysical logs were run. They found something interesting around 900 ft. There was a grayish fluid seeping in through a small fracture that had really high (~10 - 15,000 uS/cm) conductance. They planned on collecting a number of samples including VOCs. Its probably a natural brine coming in as the nearest well is over a mile away and drilling ended about 3 years ago. When I found out the results, I'll pass them on to you.

The only report I have seen regarding Dimock was in the paper a couple of days ago. They mentioned that a few wells had elevated arsenic and were obtaining water from different sources.

Take care.

Dennis J. Low, P.G.  
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From: Richard Rupert <Rupert.Richard@epamail.epa.gov>  
To: "Dennis Low" <djlow@usgs.gov>  
Date: 07/26/2012 05:19 PM  
Subject: Re: PCPG July 24, 2012 News Update - article on brine water potential from Marcellus

I just saw the authors present this paper in Cleveland at the Stray Gas Forum. Mostly the Forum was a lovefest for consultants, gas drillers and regulators. A lot of worthless presentations, though there were a couple good ones . I also met Kinga there. She gave an interesting presentation.

We are finishing up at Dimock. Maybe you have seen the reports?

We should catch up on what we found.  
Rich

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**From:** Dennis J Low [djlow@usgs.gov]

**Sent:** 07/26/2012 02:43 PM AST

**To:** Randall W Conger <rwconger@usgs.gov>; Dennis W Risser <dwrissr@usgs.gov>; Curtis L Schreffler <clschref@usgs.gov>; Richard Rupert

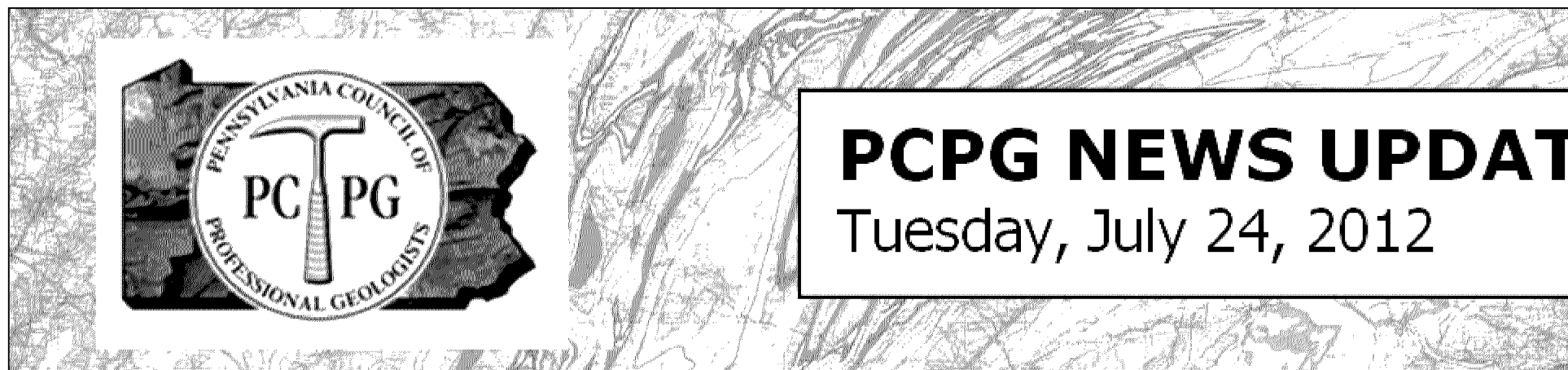
**Subject:** Fw: PCPG July 24, 2012 News Update - article on brine water potential from Marcellus

Take a read on the article regarding Marcellus and Brine water.

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----- Forwarded by Dennis J Low/WRD/USGS/DOI on 07/26/2012 02:39 PM -----

From: "PCPG" <routemail@pcpg.org>  
To: "DJ Low" <djlow@usgs.gov>  
Date: 07/24/2012 03:35 PM  
Subject: PCPG July 24, 2012 News Update



## **PCPG NEWS UPDATE**

Tuesday July 24, 2012

**DCNR Consolidation** - The Pennsylvania Department of Conservation and Natural Resources (DCNR) has consolidated the Bureau of Forestry's Ecological Services Section and the Office of Conservation Science into a new Division of Conservation Science and Ecological Resources. The new division has 13 staff members, including ecologists, botanists and biologists. DCNR Deputy Secretary Ellen Ferretti indicated that the change, "...will improve efficiency within DCNR and reduce administrative layers in the Natural Heritage Program." The Natural Heritage Program [previously part of the Office of Conservation Science] is charged with tracking rare and vulnerable species, natural communities and geologic features in Pennsylvania. To read the full press release, link to:

[http://www.dcnr.state.pa.us/ucmprd1/groups/public/documents/news/DCNR\\_010547.pdf](http://www.dcnr.state.pa.us/ucmprd1/groups/public/documents/news/DCNR_010547.pdf)

**Marcellus Research Paper on Brine Water Migration** - Researchers from Duke University have published a report in Proceedings for the National Academy of Sciences asserting that pathways, unrelated to recent drilling activities, exist in some locations between deep underlying formations and shallow drinking water aquifers which allow deep formation brine to salinate shallow aquifers. To read more, link to:

<http://www.pnas.org/content/early/2012/07/03/1121181109.full.pdf+html?sid=a61e2935-d21a-4609-b254-5f87678c8705>.

**Drought Watch** - On Thursday, July 19, 2012, the DEP issued a drought watch for the following counties in western Pennsylvania: Allegheny, Beaver, Butler, Clarion, Crawford, Erie, Fayette, Forest, Greene, Lawrence, Mercer, Somerset, Venango, Warren and Washington. A drought watch declaration is the first and least severe level of the state's three drought classifications. It calls for a voluntary five percent reduction in nonessential water use and puts large water consumers on notice to begin planning for the possibility of reduced water supplies. For more information, link to:

<http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=19513&typeid=1>

**SRBC Suspends 64 Approved Withdrawals based on Low Flow Conditions** - On July 16, 2012 the SRBC announced suspension of 64 separate approved water withdrawals due to low stream-flow conditions in the Susquehanna basin. Under SRBC's passby flow restrictions, when streams drop to

predetermined protected low flow levels, operators who are required to meet the agency’s passby requirement must stop taking water. They cannot resume resource use until streams have recovered above the protected level.

Despite the temporary water withdrawal suspensions, the SRBC notes that in some cases, the public may still see surface water withdrawal and related activities taking place. For example, passby restrictions are not required on approved withdrawal sources in cases where the SRBC has determined water withdrawal rates are insignificant compared to stream flow conditions. In addition, operators can continue to transport and use water that was withdrawn prior to the suspensions. Lastly, water withdrawals less than 100,000 gallons per day AND not associated with natural gas development are not subject to SRBC’s regulations. For more information, link to:

<http://www.srbc.net/newsroom/NewsRelease.aspx?NewsReleaseID=90>

**EIA Unproved Technically Recoverable Resources for Select Shale Gas Formations** - The U.S. Energy Information Administration (EIA) explains the process for estimating unproved technically recoverable resources (TRR) and provides unproved TRR estimates for select shale gas formations in a July 20, 2012 article posted to its Today in Energy Internet site. EIA estimates place the Marcellus out in front of other U.S. shale gas plays with an unproved TRR estimate of 141 TCF, with the Haynesville/Bossier ranking second at 66 TCF. Note that as wells are drilled and field equipment is installed and productivity is assumed, “unproved resources” become “proved reserves” so the unproved TRR estimates do not include proved reserves. For more information, link to:

<http://www.eia.gov/todayinenergy/detail.cfm?id=7190>

**Pennsylvania Geological Survey Offers Brown Bag Seminar**- On July 27, 2012, stop by the Pennsylvania Geological Survey's Middletown Office for a brown bag seminar entitled “A Revised Age and Origin of the Sams Creek/Wakefield Complex, Maryland Piedmont,” presented by Elizabeth Graybill, recipient of PCPG’s first annual Essay Scholarship. The hour-long seminar will begin at 12:00 noon in the George Ashley Learning Center. The seminar is free and no registration is required. No PDH certificates will be issued, so please keep track of your attendance.

Ms. Graybill will detail the stratigraphic, geochemical, petrographic and radiometric dating analyses that were performed on the Sams Creek Volcanics/Wakefield Carbonates Complex in the Westminster Terrane of Maryland, which revealed that interlayered carbonates, metabasalts, phyllites, and rare sandstone channels were contemporaneously deposited and built by ongoing carbonate deposition with multiple episodes of volcanic eruptions, consisting of ash falls, lava flows, and pyroclastic debris zones including volcanic bombs in carbonate. Geochemistry of volcanic rocks revealed both basaltic and andesitic eruptions. The various dating analyses performed supported a continental rift hypotheses analogous to the Red Sea rift triple junction model. Prior attribution of the Sams Creek volcanics as either Catoctin related (at ~570 Ma) or formed as a Cambro-Ordovician oceanic islands with atolls (Wakefield carbonate) was rejected.

If you are in the area, you are invited to bring your lunch and join the Survey staff for this event. Directions to the Survey building can be found at:

<http://www.dcnr.state.pa.us/topogeo/about/locmap.pdf>

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**PCPG Sponsored Events and Professional Development Seminars**

**August 2-3, 2012**

**Practical Rock Slope Engineering (800 minutes)**

8:00AM - 5:00 PM

PSU Great Valley Campus, 30 E. Swedesford Road, Malvern, PA

**October 3, 2012**

**Basic Tools for Shale Exploration (400 minutes)**

(Repeat of Williamsport event)

8:00AM - 4:30 PM

Genetti Hotel & Conference Center, 200 W. Fourth Street, Williamsport, PA

For more information, or to register online, visit PCPG's **Courses and Events** page.

**Contact Information**

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